



Research Week 2020

Novel Interventions in Children's Healthcare for Youth with T1D: Does Mental Health Moderate Outcomes?

Hannah Gottfried-Lee, Celeste Jenisch, Sophie Balthazaar, David Wagner, Michael Harris
gottfrie@ohsu.edu
OHSU-PSU School of Public Health

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Abstract

Objective

Novel Interventions in Children's Healthcare (NICH), an intensive behavioral health program, has demonstrated promise in improving health outcomes in youth with type 1 diabetes (T1D) with social risks that impact disease management. Given that mental health (MH) concerns can impact T1D outcomes and are prevalent in youth with social risks, this study aims to examine 1) the presence of MH diagnoses in NICH youth and 2) potential impact on health outcomes.

Methods

Youth (n=70) served by NICH were included. EHR review included complications (DKA) and HbA1c one year prior and two years following NICH initiation. EHR review and family report (FR) were used to examine presence of MH conditions. Mean age was 14.4 years; 40% male; 77% non-Hispanic white.

Results

MH condition prevalence ranged from 17% (EHR review) to 40% (FR). When comparing the year prior to NICH initiation to the following 2 years, youth with MH via EHR (n=12) demonstrated reductions in yearly DKAs (2.0 to .95) and increased HbA1c (11.3 to 11.6) while those without (n=58) experienced fewer yearly DKAs (1.3 to .84) and decreased HbA1c (11.3 to 10.9). When comparing the same time frames using FR, youth with MH (n=28) had fewer yearly DKAs (2.0 to 1.4) and decreased HbA1c (11.2 to 10.9), and those without MH (n=42) experienced less yearly DKAs (1.0 to .5) and increased HbA1c (11.3 to 11.0).

Conclusion

Findings are variable depending on methods used to establish presence of MH diagnoses, with more than 50% of MH diagnoses reported by families not being present in EHR. When using FR for MH identification, youth with MH had significantly ($p<.05$) more DKA

events prior to NICH initiation than those without. No other outcomes were significantly different when comparing those with and without MH, regardless methodology, suggesting that NICH outcomes are robust to MH concerns.